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ABSTRACT

This report, which compiles the results of 89 superintendent district-level surveys and 315 building surveys, was a combined effort of the Idaho Department of Education, the Idaho Division of Vocational Education, and the Rural Education Program at Northwest Regional Educational Laboratory. Its purpose is to provide an initial framework for planning and policy-making in future educational technology efforts in Idaho. The three objectives of the surveys were to: (1) determine the current level of communications technology in Idaho elementary and secondary schools; (2) establish the potential and readiness for communications capability across Idaho schools; and (3) identify specific priorities of local school districts for communications technology applications in administration, staff development, and student instruction. Major findings of the study include information on computer uses in education, delivery systems, and course offerings at rural schools. The superintendents' and building survey results are discussed separately; the survey instruments themselves are appended, with responses. (DB)

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IDAHO SURVEY OF THE EDUCATIONAL APPLICATIONS OF COMMUNICATIONS TECHNOLOGY

AN ANALYSIS

Prepared for

Idaho Department of Education
and
Idaho Division of Vocational Education

Prepared by

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Rural Education Program
Northwest Regional Educational Laboratory

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INTRODUCTION

This analysis of the Idaho Survey of Educational Applications of Communications Technology was a combined effort of the Idaho Department of Education, the Idaho Division of Vocational Education and the Rural Education Program at Northwest Regional Educational Laboratory. The two survey instruments, one for superintendents of Idaho districts and one for building level administrators and teachers, were cooperatively designed by James Marconi of the Bureau of Computer Services; Mark Kuskie, a Computer Assisted Instruction Consultant; Don Eshelby, the Director of Program Services for Vocational Education; and Steve Nelson, Director of NWREL's Rural Education Program.

The surveys had three objectives:

1) to determine the current level of communications technology in Idaho schools

2) to establish the potential and readiness for future communications capability across Idaho schools

3) to identify specific priorities of local districts for communications technology applications: administration, staff development and student instruction.

This report, compiling 89 superintendent district-level surveys and 315 building surveys, provides an initial framework for planning and policy-making in future communications technology efforts in Idaho.

NWREL's Rural Education Program has assisted state agencies in the region in distance education and distance learning over the past two years under the Rural Initiative. The Rural Education Program initially evaluated specific delivery systems--STEP in Washington, IREDS in Idaho--then shifted its efforts to collecting information and research which would assist in policy-level decision making. During this year, NWREL's Rural Education Program is conducting an evaluation of Alaska correspondence courses, a cost-benefit analysis for Hawaii distance learning projects, and an evaluation of the effectiveness of EDU-NET in Montana. For the upcoming year, the Rural Education Program has proposed to continue similar policy-level efforts in both Alaska and Montana.

MAJOR FINDINGS

CURRENT LEVEL OF COMMUNICATIONS TECHNOLOGY USE

- Twelve percent of the districts surveyed use computers for administrative purposes, either for sending or receiving information
- The highest percentage cited for any staff development category was providing college credited course work (11%)
- The highest percentage cited for any student instructional category was providing televised supplemental instructional activities (12%)

POTENTIAL FOR COMMUNICATIONS TECHNOLOGY

- Communications technology capability is uneven among the surveyed districts; 75% of the buildings are wired for TV, for example, but only 14% for satellite service
- Finance is the single greatest barrier to communications technology efforts; this finding is consistent across district size and rurality
- All districts reported high interest in using E-mail for administrative purposes
- The most desired equipment upgrade within the next two years was for computers with modems; but fewer than one fifth of the building personnel expected that improvement to occur

SPECIFIC PRIORITIES OF LOCAL DISTRICTS

- Linking educators had the greatest appeal for staff development use; 93% of the building personnel reported some or strong interest
- Rural districts were more interested in inservice and recertification training than non-rural districts
- Science, social studies and mathematics were cited by elementary schools as priorities for subjects to be offered through communications technology; science, mathematics and foreign language were cited by secondary schools

SURVEY ANALYSIS

Superintendent Surveys

Superintendent surveys were collected from 89 of 115 districts in Idaho. Each superintendent survey included 33 choice items and 5 open-ended text items. Response frequencies for each item and for all choices on each item for all superintendent surveys are provided in Appendix A. Appendix A also contains tabulations of the superintendent surveys grouped by rural and non-rural settings. Districts which were 30 miles or more from a city of at least 20,000 people were, for the purposes of this analysis, considered rural.

The superintendent survey was organized around three broad themes: first, administrative applications; second, staff development applications; and third, student instructional applications. This summary follows those three themes but divides the analysis of each theme into two sub-categories: one, current capacity; and two, potential capacity or readiness.

The choice items from the superintendent surveys are summarized in the text which follows. Whenever items of interest emerged in the analysis of the surveys due to either district size or rurality, the differences (or similarities) were noted in the sections which follow.

Administrative Applications

Current Capacity

Of the two general categories of administrative use of communications technology--giving and receiving information--superintendents responded that they were just as likely to receive information from a computer across telephone lines as they were to give it. The actual reported use was 11% of the survey respondents. Rural districts reported computer use more frequently than non-rural districts, but the difference was slight (7 districts versus 3).

About one quarter of the districts stated that they currently had a computer and modem available; this finding held true across rural and non-rural districts. Larger enrollment districts were three times as likely to have a computer and modem available than small or medium sized districts (47% versus 13%). In addition, another 46% of the superintendents surveyed reported that they currently have at least a computer available, if only one lacking a modem.

Potential Capacity or Interest

In general, interest in E-mail or an electronic bulletin board service is quite strong. The appeal of electronic exchange of information held steady across different enrollment sizes and rurality. Overall, superintendents were open to receiving or sending data electronically to the State Department of Education. Only three surveys reported opposition to the idea, and most (55%) stated they would participate if a system were in place to handle information exchanges. All superintendents surveyed reported that they would like to learn more about administrative uses of communications technology (84% "yes," 14% "maybe," 2% no response). The smallest districts had the highest affirmative response (97%).

Staff Development Applications

Current Capacity

Current staff development efforts using communications technology ranged from a high of 22% of the surveyed districts indicating that they offer Idaho college and university telecourses to a low of seven percent which offer out of state telecourses. Fifteen percent of the districts participating in the survey also stated that they currently are part of the Vocational Education Network. It is worth noting, however, that on each of the four items referencing current staff development communications technology efforts--Idaho telecourses, out-of-state teleccurses, Learning Linking Network, and

Vocational Education Network--that from seven to twelve percent of the survey respondents were uncertain if staff were currently participating or not. This suggests the interpretation that the actual level of current participation may be higher than reported.

Potential Capacity or Interest

Interest in enhancing staff development efforts, as in most of the survey categories, is quite strong. Only a handful of respondents indicated no interest in any of the staff development choices--inservice/recertification training, locating instructional materials, college credit coursework or linking educators--and the vast majority (90% or higher) were somewhat or very interested. The largest discrepancy in staff development interest was between rural and non-rural districts: rural districts report that 86% of them are very interested in inservice or recertification training versus only 58% of their non-rural counterparts.

Student Instructional Applications

Current Capacity

Current use of communications technology as reported by the superintendent surveys indicated that fewer than 13% of the surveyed districts offer programs featuring communications technology within any specific category. The highest current use category is in televised supplemental activities (12%), and the lowest was in interactive televised elementary programs, with no district reporting their use. It is more likely, however, that this reflects availability rather than unwillingness to use communications technology, since both the superintendent surveys and the building surveys summarized in the next section report high interest for using television in instructional efforts. In addition, it is worth noting that at this time staff development efforts using communications technology are reported as higher than student instructional efforts.

Potential Capacity and Interest

The least interest--the lowest response rate in the "very interested" category--was for computerized instruction with modems (44%) and interactive elementary course offerings (42%). The greatest interest was reported for interactive secondary course offerings (58%) and televised supplemental activities and classroom conferences with other schools, both at 56%. Similar to interest in staff development applications, only a handful of superintendents reported no interest in student instruction using communications technology--the highest negative category was televised elementary offerings at 9%. Rural and non-rural districts showed essentially equal interest (after combining responses in "very interested" and "somewhat interested") n enhancing student instruction.

Building Surveys

Building surveys were collected from 315 out of a possible 545 building sites in Idaho. Each building survey form included 19 choice items and 3 open-ended text items. The 315 building surveys processed by NWREL represented 114 districts across Idaho. The district count for the building surveys is slightly higher than the district count for the superintendent survey--114 compared to 89--because 25 districts completed building level surveys but lacked a corresponding superintendent survey.

Response frequencies for each item and for all choices on each item for all building surveys are provided in Appendix B. Appendix B also contains tabulations of the building surveys grouped by district enrollment size and by rural and non-rural settings. Districts which were 30 miles or more from a city of at least 20,000 people were, for the purposes of this analysis, considered rural.

The building survey was organized around three broad themes: first, staff development; second, student instruction; and third, the feasibility of communications

technology. This summary follows those three themes but divides the analysis of each theme into two sub-categories: one, current capacity; and two, potential capacity or readiness. The choice items from the building surveys are summarized in the text which follows. Open-ended text items are displayed, whenever possible, in chart form.

Staff Development

Current Capacity

Communications technology has had limited impact on building-level staff development efforts in Idaho. The highest percentage reported for communications technology use in staff development activities--for college-credited coursework--was 11%. As is the case with other questions in both the superintendent and building surveys, interest in service delivery is high, but capacity and current use are low. Although non-rural districts reported a greater number of staff development programs offered through communications technology than rural districts, the difference was not substantial (15% versus 8%, a difference of ten buildings).

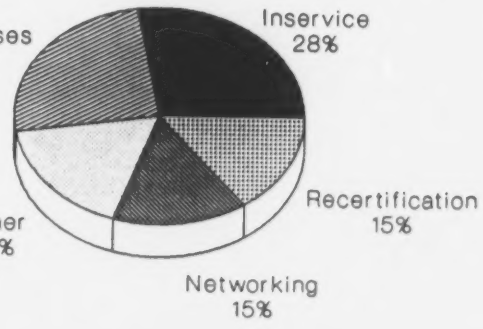
Potential Capacity or Interest

Over two thirds (68%) of all the building surveys indicated interest in enhancing staff development by linking educators, followed closely by locating instructional materials (64%). Smaller districts reported far greater interest in recertification training than larger districts (77% versus 50%). In all remaining categories of staff development--locating instructional materials, college credit coursework and linking educators for idea exchanges--the smallest districts reported more interest than the largest districts.

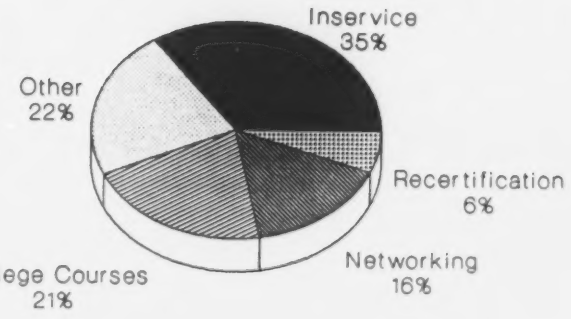
The charts on the following page summarize by enrollment size the survey responses to the open-ended question on how communications technology could best benefit schools for staff development.

POTENTIAL INTEREST IN COMMUNICATIONS TECHNOLOGY FOR STAFF DEVELOPMENT

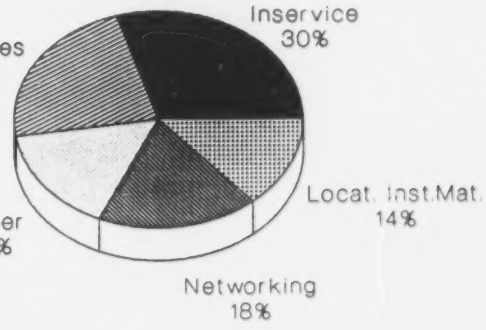
Small Districts



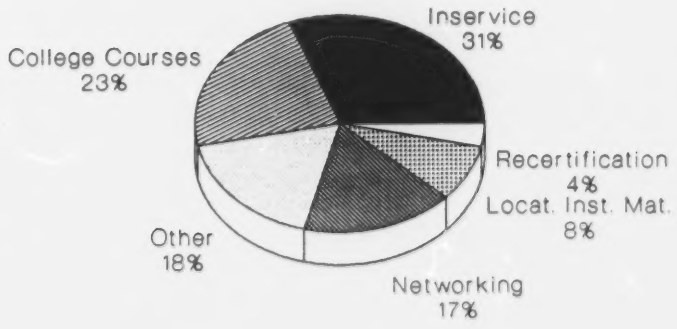
Mid-Sized Districts



Large Districts



Totals



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Student Instruction

Current Capacity

The current capacity for student instruction using communications technology is, for all practical purposes, equivalent across all districts without regard to size (except for interactive secondary course offerings for the smallest schools) or rurality. The largest difference, for example, between student instructional capacity in rural and non-rural settings is in interactive television at the secondary level. Sixteen rural buildings (10%) have interactive offerings whereas only five (3%) non-rural buildings do. Other differences in equipment and facilities for student instruction between rural and non-rural districts are smaller.

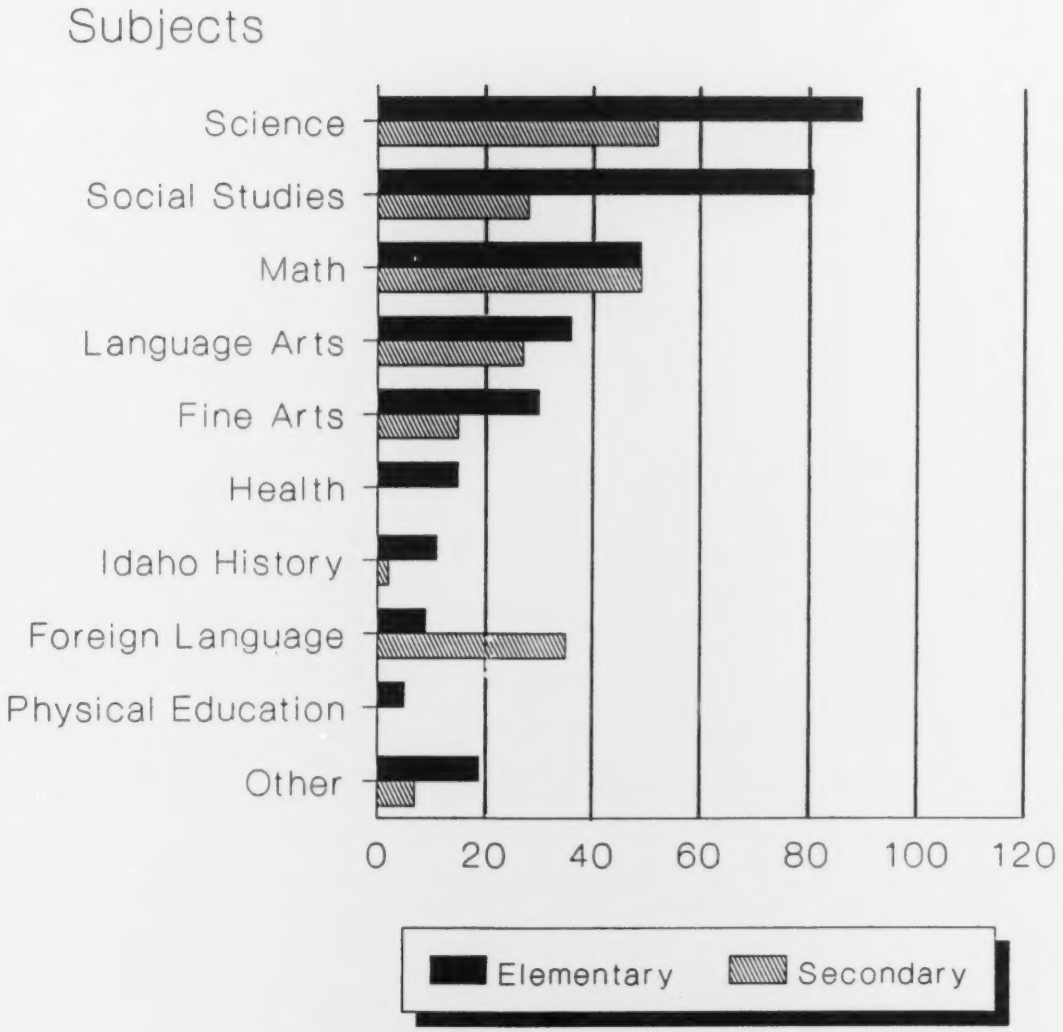
In general, communications technology at the present time appears to have had minimal impact on student instruction. For example, only seven sites in the entire building sample reported that they currently use computers with modems for instruction.

Potential Capacity or Interest

Interest is strong in televised supplemental activities. Sixty three percent of building personnel reported that they were very interested in supplemental televised instructional activities. Somewhat less interest was apparent in computerized instruction using modems, with 47% of the districts expressing strong interest.

The bar graph on the following page summarizes responses to the building survey question on which subjects could be enhanced by communications technology at the elementary and secondary school levels.

Subject Interest
Elementary and Secondary Schools



Feasibility of Communications Technology

Current Capacity

The capacity for communications technology appears relatively equivalent between rural and non-rural locations throughout Idaho. Where differences in current capacity do exist, they are slight. One of the more interesting findings was that rural and non-rural settings had essentially the same number of buildings with satellite capability (21 versus 22). TV service was available more frequently in non-rural than rural buildings (127 versus 116), but again the difference was slight (7%).

Larger differences do show up in communications technology capability when the data is grouped by district enrollment size. A greater percentage of small enrollment districts have dedicated phone lines available for computer use (60% versus 42%). Expressed in percentages, in most categories smaller districts have more current capabilities than larger districts, which may reflect greater needs and/or greater awareness on the part of smaller enrollment districts. Surprisingly, a larger percentage of smaller enrollment districts have CDROM capability (12% versus 5%), but again the difference is minimal--only 18 buildings statewide report having CDROM equipment, five of which are in small enrollment districts.

Potential Capacity or Interest

The potential for communications technology use is slightly more difficult to determine than other, simpler scales in the rest of the building survey. Since the response categories referring to equipment and facilities have a wide range of choices--yes, no, yes within two years, maybe within two years, etc.--actual state-wide interest may vary slightly from the findings presented in this report. Of greatest interest, then, are sites that expect to be unable to provide communications technology in a particular category even within the next two years. For example, four percent of all sites reported that they

believed they would be unable to provide TV service in the near future, which would appear to indicate that 90% or more of the buildings in Idaho will be able to provide TV service.

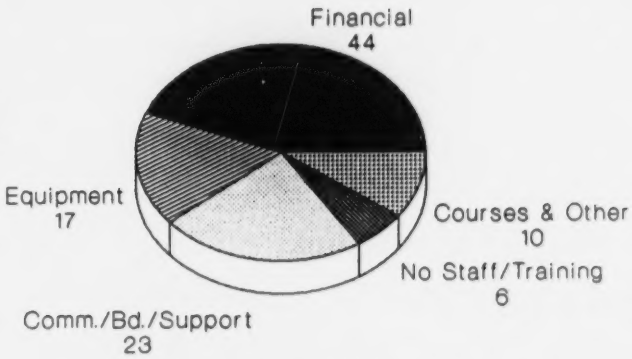
The largest category of negative responses to potential readiness were in the more expensive hi-tech areas (CDROM and interactive video disc equipment) with 23% of the building personnel statewide reporting that they would be unable to provide that capability. It is probably incorrect to assume, however, that three quarters of the state will be CDROM capable within two years. What is more likely is that the majority of the "maybe" category--40% of respondents--will drop into the "no" category in two years.

The largest two growth categories--as measured by "yes, within two years"--are in computers with modems and classrooms available for instruction--both with 61 total responses. Enrollment size has inconsistent effects across the different categories. The diversity of apparent readiness has more to do with current capacity than with interest, i.e., large districts with more equipment tend to show less interest or "readiness," most likely because the equipment is already available.

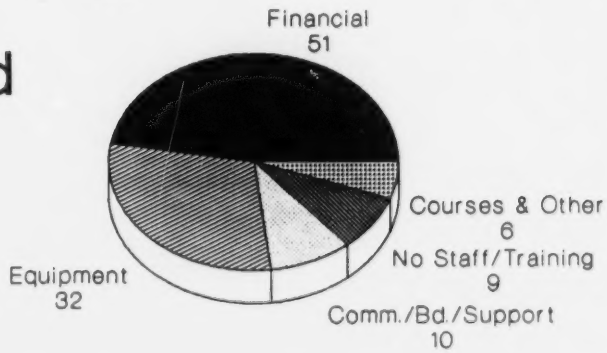
The charts on the following page summarize the open-ended responses to the building survey question concerning the greatest barriers to overcome if communications technology is to be used successfully to support education.

BARRIERS TO COMMUNICATIONS TECHNOLOGY

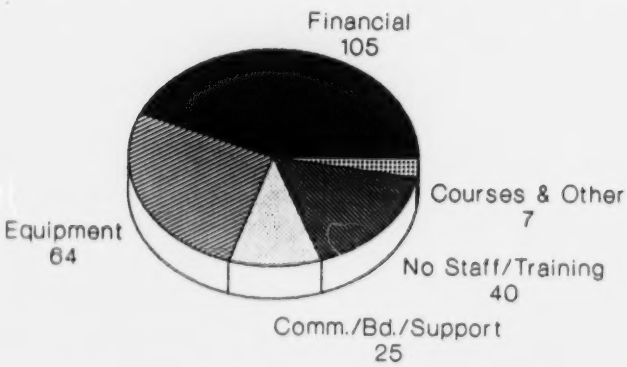
Small Districts



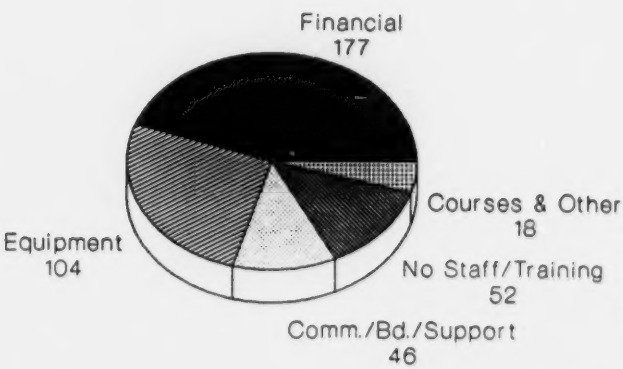
Mid-Sized Districts



Large Districts



Totals



IMPLICATIONS FOR COMMUNICATIONS TECHNOLOGY POLICY

The information supplied by this analysis of the superintendent and building personnel surveys may serve as an initial framework or guide for policy decisions concerning the use of communications technology in Idaho. Based on this data analysis, NWREL'S Rural Education Program offers the following three points for consideration:

1. Idaho's current level of use of communications technology appears to be limited, but is consistent with the expertise, equipment and fiscal support available.

2. Generally, before additional equipment is purchased or substantial funds are expended, state support and awareness of the proper use and role of communications technology needs to be considered.

3. Idaho, because of its rural nature and the interest level of the survey respondents, has an excellent opportunity--pending fiscal support--to serve as a model for the appropriate use of communications technology in educational settings.

Appendices

Appendix A: Superintendent Survey

This appendix contains data results from the 89 superintendent surveys. The first set of survey results--which follow the items as they appear in the survey--are the totals for all choices on all questions. The tallies within each item vary slightly, since some survey respondents chose not to answer some questions. Percentages listed below each item are for the item only.

SUPERINTENDENT SURVEY RESULTS: ALL SURVEYS

I. ADMINISTRATIVE USES

A. GIVING INFORMATION

1. Considering the paperwork which you and your staff currently complete to report information, how satisfied are you with:

	Very Satisified	Somewhat Satisfied	Somewhat Dissatisifed	Very Satisfied
	a) the time involved:			
tot.	4	32	47	5
%	4.49	35.96	52.81	5.62
	b) the accuracy of the information:			
tot.	28	44	15	2
%	31.46	49.44	16.85	1.12
	c) the usefulness of the information:			
tot.	14	55	18	1
%	15.73	61.80	20.22	1.12
	d) the format of the reporting documents:			
tot.	12	52	19	3
%	13.48	58.43	21.35	3.37

2. Do you currently use a computer to send information over the telephone?

	Yes	No
tot.	11	77
%	12.36	86.52

3. Would you be interested in sending data such as PRS forms and IFARMS electronically to the State Department of Education?

	Definitely Not	Maybe, if I knew more about it	Yes, when a system is in place
tot.	3	36	49
%	3.37	40.45	55.06

B. RECEIVING INFORMATION

1. Considering your administrative needs for information, how satisfied are you with:

	Very Satisfied	Somewhat Satisfied	Somewhat Dissatified	Very Dissatisfied
	a) the work it takes to get it:			
tot.	10	60	18	2
%	11.24	67.42	20.22	2.25
	b) the usefulness of the information:			
tot.	16	60	10	1
%	17.98	67.42	11.24	1.12
	c) timeliness of the information:			
tot.	12	59	14	1
%	13.48	66.29	15.73	1.12

2. Do you currently use a computer to receive information over the telephone?

	Yes	No
tot.	10	79
%	11.24	88.76

3. Would you be interested in using electronic mail or a bulletin board system among school administrators and State Department of Education staff for:

	Yes	Maybe	Definitely Not
	a) Legislative updates:		
tot.	62	25	0
%	69.66	28.09	0.00
	b) Calendar/scheduling meetings and events:		
tot.	59	27	2
%	66.29	30.34	2.25
	c) Department memos and surveys:		
tot.	60	23	4
%	67.42	25.84	4.49
	d) Policy information:		
tot.	61	24	2
%	68.54	26.97	2.25
	e) Exchanging messages:		
tot.	58	27	2
%	65.17	30.34	2.25
	f) Statistical information:		
tot.	62	25	0
%	69.66	28.09	0.00
	g) Personnel vacancies and applicant pools:		
tot.	58	28	2
%	65.17	31.46	2.25

4. In your district office, is there a phone line available for computer use?

	Yes, now	Yes, could be	No, line not available
tot.	24	57	6
%	26.97	64.04	6.74

5. In your district office, do you currently have a computer and modem (telephone to computer connection) which could be used for electronic communication?

	Yes, both a modem and computer	Yes, just the computer	No, but we plan to purchase within a year	No, currently have no plans to purchase
tot.	22	41	7	16
%	24.72	46.07	7.87	17.98

o. Would you like to learn to learn more about the potential administrative uses of communications technology?

	Yes	Maybe	Not Interested
tot.	75	12	0
%	84.27	13.48	0.00

II. STAFF DEVELOPMENT USES

1. To what degree would you support the use of communications technology for your staff in the following areas:

	Very Interested	Somewhat Interested	Not Interested
	a) Inservice/recertification training:		
tot.	67	22	0
%	75.28	24.72	0.00
	b) locating instructional materials and resources:		
tot.	60	27	2
%	67.42	30.34	2.25
	c) college credited coursework:		
tot.	55	30	4
%	61.80	33.71	4.49
	d) linking educators for problem solving and exchanging ideas:		
tot.	55	31	2
%	61.80	34.83	2.25

2. Some efforts are currently underway in Idaho to support staff development through communication technology--televised teacher education courses from the university system and a computer network (Learning Lab) of Idaho teachers. Is staff in your district currently participating in:

	Yes	No	Don't know
	a) Idaho college and university telecourses:		
tot.	20	60	9
%	22.47	67.42	10.11
	b) Out of state telecourses:		
tot.	6	73	10
%	6.74	82.02	11.24
	c) Learning Link computer network:		
tot.	16	66	6
%	17.98	74.16	6.74
	d) Vocational education network:		
tot.	13	64	11
%	14.61	71.91	12.36

III. STUDENT INSTRUCTIONAL USES

1. To what degree would you support the use of communications technology for student instruction in the following areas?

	Doing Now	Very Interested	Somewhat Interested	Not Interested
	a) Interactive televised secondary level course offerings:			
tot.	11	51	21	5
%	12.36	57.30	23.60	5.62
	b) Interactive televised elementary level course offerings:			
tot.	0	37	44	8
%	0.00	41.57	49.44	8.99
	c) Computerized instruction via modem:			
tot.	5	39	37	6
%	5.62	43.82	41.57	6.74
	d) Televised supplemental instructional activities:			
tot.	11	50	25	3
%	12.36	56.18	28.09	3.37
	e) Classroom conferences with other schools or resource people:			
tot.	1	50	34	4
%	1.12	56.18	38.20	4.49

SUPERINTENDENT SURVEY RESULTS: RURAL AND NON-RURAL

The second analysis of the superintendent survey choice items was by rural and non-rural districts. The rural/non-rural breakdown was an estimate of "rurality" rather than a precise indicator. NWREL Rural Education program selected rural districts by estimating distances from a metropolitan center (a town of at least 20,000) and found that 56 of the responding districts were "rural" and 33 were "non-rural."

Note: *The first pair of numbers (counts and percents) in the survey below represents returns from RURAL districts. The second pair of numbers represents NON-RURAL districts.*

I. ADMINISTRATIVE USES

A. GIVING INFORMATION

1. Considering the paperwork which you and your staff currently complete to report information, how satisfied are you with:

	Very Satisified	Somewhat Satisfied	Somewhat Dissatisifed	Very Satisfied
	a) the time involved:			
tot.	2	24	26	3
%	3.57	42.86	46.43	5.36
tot.	2	8	21	2
%	6.06	24.24	63.64	6.06
	b) the accuracy of the information:			
tot.	20	28	7	20
%	35.71	50.00	12.50	0.00
tot.	8	16	8	8
%	24.24	48.48	24.24	3.03

c) the usefulness of the information:

tot.	10	34	10	1
%	17.86	60.71	17.86	1.79
tot.	4	21	8	0
%	12.12	63.64	24.24	0.00

d) the format of the reporting documents:

tot.	8	34	13	0
%	14.29	60.71	23.21	0.00
tot.	4	18	6	3
%	12.12	54.55	18.18	9.09

2. Do you currently use a computer to send information over the telephone?

	Yes	No
tot.	6	50
%	10.71	89.29
tot.	5	27
%	15.15	81.82

3. Would you be interested in sending data such as PRS forms and IFARMS electronically to the State Department of Education?

	Definitely Not	Maybe, if I knew more about it	Yes, when a system is in place
tot.	2	22	31
%	3.57	39.29	55.36
tot.	1	14	18
%	3.03	42.42	54.55

B. RECEIVING INFORMATION

1. Considering you administrative needs for information, how satisfied are you with:

	Very Satisfied	Somewhat Satisfied	Somewhat Dissatified	Very Dissatisfied

a) the work it takes to get it:

tot.	6	38	10	1
%	10.71	67.86	17.86	1.79
tot.	4	22	8	1
%	12.12	66.67	24.24	3.03

b) the usefulness of the information:

tot.	12	38	5	0
%	21.43	67.86	8.93	0.00
tot.	4	22	5	1
%	12.12	66.67	15.15	3.03

c) timeliness of the information:

tot.	10	35	9	0
%	17.86	62.50	16.07	0.00
tot.	2	24	5	1
%	6.06	72.73	15.15	3.03

2. Do you currently use a computer to receive information over the telephone?

	Yes	No
tot.	7	49
%	12.50	87.50
tot.	3	30
%	9.09	90.91

3. Would you be interested in using electronic mail or a bulletin board system among school administrators and State Department of Education staff for:

	Yes	Maybe	Definitely Not
	a) Legislative updates:		
tot.	39	15	0
%	69.64	26.79	0.00
tot.	23	10	0
%	69.70	30.30	0.00
	b) Calendar/scheduling meetings and events:		
tot.	39	14	2
%	69.64	25.00	3.57
tot.	20	13	0
%	60.61	39.39	0.00
	c) Department memos and surveys:		
tot.	38	13	3
%	67.86	23.21	5.36
tot.	22	10	1
%	66.67	30.30	3.03
	d) Policy information:		
tot.	39	13	2
%	69.64	23.21	3.57
tot.	22	11	0
%	66.67	33.33	0.00
	e) Exchanging messages:		
tot.	38	15	1
%	67.86	26.79	1.79
tot.	20	12	1
%	60.61	36.36	3.03
	f) Statistical information:		
tot.	39	15	0
%	69.64	26.79	0.00
tot.	23	10	0
%	69.70	30.30	0.00
	g) Personnel vacancies and applicant pools:		
tot.	41	13	1
%	73.21	23.21	1.79
tot.	17	15	1
%	51.52	45.45	3.03

4. In your district office, is there a phone line available for computer use?

	Yes, now	Yes, could be	No, line not available
tot.	18	33	3
%	32.14	58.93	5.36
tot.	6	24	3
%	18.18	72.73	9.09

5. In your district office, do you currently have a computer and modem (telephone to computer connection) which could be used for electronic communication?

	Yes, both a modem and computer	Yes, just the computer	No, but we plan to purchase within a year	No, currently have no plans purchase
tot.	14	29	5	7
%	25.00	51.79	8.93	12.50
tot.	8	12	2	9
%	24.24	36.36	6.06	27.27

6. Would you like to learn to learn more about the potential administrative uses of communications technology?

	Yes	Maybe	Not Interested
tot.	48	7	0
%	85.71	12.50	0.00
tot.	27	5	0
%	81.82	15.15	0.00

II. STAFF DEVELOPMENT USES

1. To what degree would you support the use of communications technology for your staff in the following areas:

	Very Interested	Somewhat Interested	Not Interested
	a) Inservice/recertification training:		
tot.	48	8	0
%	85.71	14.29	0.00
tot.	19	14	0
%	57.58	42.42	0.00
	b) locating instructional materials and resources:		
tot.	39	16	1
%	69.64	28.57	1.79
tot.	21	11	1
%	63.64	33.33	3.03
	c) college credited coursework:		
tot.	39	15	2
%	69.64	26.79	3.57
tot.	16	15	2
%	48.48	45.45	6.06
	d) linking educators for problem solving and exchanging ideas:		
tot.	34	21	0
%	60.71	37.50	0.00
tot.	21	10	2
%	63.64	30.30	6.06

2. Some efforts are currently underway in Idaho to support staff development through communication technology--televised teacher education courses from the university system and a computer network (Learning Lab) of Idaho teachers. Is staff in your district currently participating in:

	Yes	No	Don't know
	a) Idaho college and university telecourses:		
tot.	10	43	3
%	17.86	76.79	5.36
tot.	10	17	6
%	30.30	51.52	18.18
	b) Out of state telecourses:		
tot.	3	50	3
%	5.36	89.29	5.36
tot.	3	23	7
%	9.09	69.70	21.21
	c) Learning Link computer network:		
tot.	9	45	2
%	16.07	80.36	3.57
tot.	7	21	4
%	21.21	63.64	12.12
	d) Vocational education network:		
tot.	7	43	5
%	12.50	76.79	8.93
tot.	6	21	6
%	18.18	63.64	18.18

III. STUDENT INSTRUCTIONAL USES

1. To what degree would you support the use of communications technology for student instruction in the following areas?

	Doing Now	Very Interested	Somewhat Interested	Not Interested
	a) Interactive televised secondary level course offerings:			
tot.	7	35	10	3
%	12.50	62.50	17.86	5.36
tot.	4	16	11	2
%	12.12	48.48	33.33	6.06
	b) Interactive televised elementary level course offerings:			
tot.	0	23	26	7
%	0.00	41.07	46.43	12.50
tot.	0	14	18	1
%	0.00	42.42	54.55	3.03
	c) Computerized instruction via modem:			
tot.	4	27	20	3
%	14	48.21	35.71	5.36
tot.	1	12	17	3
%	3.03	36.36	51.52	9.09
	d) televised supplemental instructional activities:			
tot.	6	32	16	2
%	10.71	57.14	28.57	3.57
tot.	5	18	9	1
%	15.15	54.55	27.27	3.03
	e) classroom conferences with other schools or resource people:			
tot.	0	33	20	3
%	0.00	58.93	35.71	5.36
tot.	1	17	14	1
%	3.03	51.52	42.42	3.03

Appendix B: Building Surveys

The initial analysis the building surveys combines all statewide data. The first line following each item called "tot." indicates the number of respondents who selected that choice; the second line labelled "%" is the percentage.

BUILDING SURVEY RESULTS: ALL SURVEYS

A. STAFF DEVELOPMENT

1. To what degree would your school support the use of communications technology for staff development in the following areas:

	Doing Now	Very Interested	Somewhat Interested	Not Interested
	a) inservice/recertification training:			
tot.	34	183	90	8
%	10.79%	58.10	28.57	2.54
	b) locating instructional materials and resources:			
tot.	20	199	87	7
%	6.35	63.17	27.62	2.22
	c) college credited coursework:			
tot.	36	193	76	10
%	11.43	61.27	24.13	3.17
	d) linking educators for problem solving and exchanging ideas:			
tot.	12	214	79	9
%	3.81	67.94	25.08	2.86

B. STUDENT INSTRUCTION

1. To what degree would your school support the use of communications technology for student instruction in the following areas:

	Doing Now	Very Interested	Somewhat Interested	Not Interested
	a) interactive televised secondary level course offerings:			
tot.	21	88	71	77
%	6.67	27.94	22.54	24.44
	b) interactive televised elementary level course offerings:			
tot.	6	124	106	54
%	1.90	39.37	33.65	17.14
	c) computerized instruction via modem:			
tot.	7	148	117	30
%	2.22	46.98	37.14	9.52
	d) televised supplemental instructional activities:			
tot.	20	199	85	7
%	6.35	63.17	26.98	2.22

	e) classroom conferences with other schools or resource people via: telephone:			
tot.	12	116	98	43
%	3.81	36.83	31.11	13.65
	computer:			
tot.	11	149	90	29
%	3.49	47.30	28.57	9.21
	video:			
tot.	7	166	23	96
%	2.22	52.70	7.30	30.48

C. FEASIBILITY OF COMMUNICATIONS TECHNOLOGY

	Now		Within Two Years		
	Yes	No	Yes	Maybe	No
	a) Building wired for T.V. service:				
tot.	243	7	19	32	12
%	77.14	2.22	6.03	10.16	3.81
	b) Building wired for satellite T.V. service:				
tot.	43	41	37	115	72
%	13.65	13.02	11.75	36.51	22.86
	c) Telephone line (phone number) available for computer linkage:				
tot.	141	14	43	75	35
%	44.76	4.44	13.65	23.81	11.11
	d) Computer with modem for telephone linkage:				
tot.	86	22	61	97	43
%	27.30	6.98	19.37	30.79	13.65
	e) Classroom(s) available for student instruction via communication:				
tot.	243	17	61	74	41
%	46.03	5.40	10.16	23.49	13.02
	f) Room(s) available for staff development via communications technology:				
tot.	168	14	38	56	31
%	53.33	4.44	12.06	17.78	9.84
	g) Electronically stored reference materials, such as CDROM (laser disc):				
tot.	18	59	31	127	74
%	5.71	18.73	9.84	40.32	23.49
	h) Interactive video disc technology:				
tot.	11	65	30	128	73
%	3.49	20.63	9.52	40.63	23.17

BUILDING SURVEY RESULTS: BY ENROLLMENT

The second analysis of the Building Survey is organized by **enrollment**. Building survey choice items were analyzed according to district enrollment. District enrollments were sorted by size and divided into thirds. The first pair of numbers beneath each item represents small districts with enrollment below 450; the second pair represents medium-sized districts with enrollment from 450 to 1,600; and the final pair represent large districts with enrollment over 1,600.

A. STAFF DEVELOPMENT

1. To what degree would your school support the use of communications technology for staff development in the following areas:

	Doing Now	Very Interested	Somewhat Interested	Not Interested
	a) inservice/recertification training:			
tot.	4	31	5	0
%	10.00	77.50	12.50	0.00
total		9	5	141
%	11.3	?	17.72	1.27
tot.	21	97	71	7
%	10.71	49.49	36.22	3.57
	b) locating instructional materials and resources:			
tot.	0	34	5	0
%	0.0	85.00	2.50	0.00
tot.	4	54	19	2
%	5.06	68.35	24.05	2.53
tot.	16	111	63	5
%	8.16	56.63	32.14	2.55
	c) college credited coursework:			
tot.	3	27	10	0
%	7.50	67.50	25.00	0.00
tot.	5	59	14	1
%	6.33	74.68	17.72	1.27
tot.	28	107	52	9
%	14.29	54.59	26.53	4.59
	d) linking educators for problem solving and exchanging ideas:			
tot.	3	29	8	0
%	7.50	72.50	20.00	0.00
tot.	3	55	19	2
%	3.80	69.62	24.05	2.53
tot.	6	130	52	7
%	3.06	66.33	26.53	3.57

B. STUDENT INSTRUCTION

1. To what degree would your school support the use of communications technology for student instruction in the following areas:

	Doing Now	Very Interested	Somewhat Interested	Not Interested
	a) interactive televised secondary level course offerings:			
tot.	12	18	6	3
%	30.00	45.00	15.00	7.50
tot.	6	30	26	8
%	7.59	37.97	32.91	10.13
tot.	3	40	39	66
%	1.53	20.41	19.90	33.67

	b) interactive televised elementary level course.offerings:			
tot.	2	22	13	2
%	5.00	55.00	32.50	5.00
tot.	1	32	24	14
%	1.27	40.51	30.38	17.72
tot.	3	70	69	38
%	1.53	35.71	35.20	19.39
	c) computerized instruction via modem:			
tot.	1	27	9	1
%	2.50	67.50	22.50	2.50
tot.	3	32	38	5
%	3.80	40.51	48.10	6.33
tot.	3	89	70	24
%	1.53	45.41	35.71	12.24
	d) televised supplemental instructional activities:			
tot.	6	31	2	0
%	15.00	7.50	5.00	0.00
tot.	4	49	24	1
%	5.06	62.03	30.38	1.27
tot.	10	119	59	6
%	5.10	60.71	30.10	3.06
	e) classroom conferences with other schools or resource people via:			
	telephone:			
tot.	2	19	14	1
%	5.00	47.50	35.00	2.50
tot.	4	35	28	4
%	5.06	44.30	35.44	5.06
tot.	6	62	56	38
%	3.06	31.63	28.57	19.39
	computer:			
tot.	1	28	7	0
%	2.50	70.00	17.50	0.00
tot.	2	39	31	3
%	2.53	49.37	39.24	3.80
tot.	8	82	52	26
%	4.08	41.84	26.53	13.27
	video:			
tot.	3	28	1	6
%	7.50	70.00	2.50	15.00
tot.	1	44	3	28
%	1.27	55.70	3.80	35.44
tot.	3	94	19	62
%	1.53	47.96	9.69	31.63

C. FEASIBILITY OF COMMUNICATIONS TECHNOLOGY

	Now		Within Two Years		
	Yes	No	Yes	Maybe	No
	a) Building wired for T.V. service:				
tot.	30	0	3	5	2
%	75.00	0.00	7.50	12.50	5.00
tot.	54	3	6	12	4
%	68.35	3.80	7.59	15.19	5.06
tot.	159	4	10	15	6
%	81.12	2.04	5.10	7.65	3.06

	b) Building wired for satellite T.V. service:				
tot.	10	1	7	17	3
%	25.00	12.50	17.50	42.50	7.50
tot.	11	8	8	36	16
%	13.92	10.13	10.13	45.57	20.25
tot.	22	32	22	62	53
%	11.22	16.33	11.22	31.63	27.04
	c) Telephone line (phone number) available for computer linkage:				
tot.	24	2	8	5	1
%	60.00	5.00	20.00	12.50	2.50
tot.	35	3	11	22	7
%	44.30	3.80	13.92	27.85	8.86
tot.	82	9	24	48	27
%	41.84	4.59	12.24	24.49	13.78
	d) Computer with modem for telephone linkage:				
tot.	14	2	13	9	2
%	35.00	5.00	32.50	22.50	5.00
tot.	17	7	15	30	9
%	21.52	8.86	18.99	37.97	11.39
tot.	55	13	33	58	32
%	28.06	6.6	16.84	29.59	16.33
	e) Classroom(s) available for student instruction via communication:				
tot.	30	1	13	2	0
%	75.00	2.50	15.00	5.00	0.00
tot.	54	4	15	23	11
%	37.97	5.06	13.92	29.11	13.92
tot.	159	12	33	49	30
%	43.37	6.12	7.65	25.00	15.31
	f) Room(s) available for staff development via communications technology:				
tot.	28	1	5	6	0
%	70.00	2.50	12.50	15.00	0.00
tot.	38	3	13	18	6
%	48.10	3.80	16.46	22.78	7.59
tot.	102	10	20	32	25
%	52.04	5.10	10.20	16.33	12.76
	g) Electronically stored reference materials, such as CDROM (laser disc):				
tot.	5	5	8	16	6
%	12.50	12.50	20.00	40.00	15.00
tot.	3	14	9	32	21
%	3.80	17.72	11.39	40.51	26.58
tot.	10	40	14	79	47
%	5.10	20.41	7.14	40.31	23.98
	h) Interactive video disc technology:				
tot.	1	5	11	17	5
%	2.50	12.50	27.50	42.50	12.50
tot.	3	17	6	32	21
%	3.80	21.52	7.59	40.51	26.58
tot.	7	43	13	79	47
%	3.57	21.94	6.63	40.31	23.98

BUILDING SURVEY RESULTS: RURAL AND NON-RURAL

For the final analysis, building survey choice items were divided by rural and non-rural districts. It should be noted that the rural/non-rural breakdown was an estimate of "rurality" rather than a precise indicator. The question on the survey which determined rurality sought to find out how close a building was to a metropolitan center of at least 20,000 people. Since the surveys were sorted by district, it was conceivable

for a building to be within thirty miles of a metropolitan center and for another building in the same district to be further than thirty miles from a metropolitan center. NWREL Rural Education program selected rural districts by estimating distances from a metropolitan center and on balance, found that 158 buildings were in "rural" areas and 157 were not.

Note: *The first pair of numbers (counts and percents) in the survey below represents returns from RURAL districts. The second pair of numbers represents NON-RURAL districts.*

A. STAFF DEVELOPMENT

1. To what degree would your school support the use of communications technology for staff development in the following areas:

	Doing Now	Very Interested	Somewhat Interested	Not Interested
	a) inservice/recertification training:			
tot.	15	108	33	2
%	9.49%	68.35	20.89	1.27
tot.	19	75	57	6
%	12.10%	47.77	36.31	3.82
	b) locating instructional materials and resources:			
tot.	7	105	40	5
%	4.43	66.46	25.32	3.16
tot.	13	94	47	2
%	8.28	59.87	29.94	1.27
	c) college credited coursework:			
tot.	13	109	34	2
%	8.23	68.99	21.52	1.27
tot.	23	84	42	8
%	14.65	53.50	26.75	5.10
	d) linking educators for problem solving and exchanging ideas:			
tot.	4	102	46	6
%	2.53	64.56	29.11	3.80
tot.	8	112	33	3
%	5.10	71.34	21.02	1.91

B. STUDENT INSTRUCTION

1. To what degree would your school support the use of communications technology for student instruction in the following areas:

	Doing Now	Very Interested	Somewhat Interested	Not Interested
	a) interactive televised secondary level course offerings:			
tot.	16	52	44	28
%	10.13	32.91	27.85	17.72
tot.	5	36	27	49
%	3.18	22.93	17.20	31.21
	b) interactive televised elementary level course offerings:			
tot.	2	65	47	33
%	1.27	41.14	29.75	20.89
tot.	4	59	59	21
%	2.55	37.58	?.58	13.38

	c) computerized instruction via modem:			
tot.	4	74	61	15
%	2.53	46.84	38.61	9.49
tot.	3	74	56	15
%	1.91	47.13	35.67	9.55
	d) televised supplemental instructional activities:			
tot.	10	101	42	3
%	6.33	63.92	26.58	1.90
tot.	10	98	43	4
%	6.37	62.42	27.39	2.55
	e) classroom conferences with other schools or resource people via:			
	telephone:			
tot.	7	64	53	18
%	4.43	40.51	33.54	11.39
tot.	5	52	45	25
%	3.18	33.12	28.66	15.92
	computer:			
tot.	6	80	49	13
%	3.80	50.63	31.01	8.23
tot.	5	69	41	16
%	3.18	43.95	26.11	10.19
	video:			
tot.	5	85	11	51
%	3.16	53.80	6.96	32.28
tot.	2	81	12	45
%	1.27	51.59	7.64	28.66

C. FEASIBILITY OF COMMUNICATIONS TECHNOLOGY

1. For your school building, note the equipment/facilities currently available and what would be desirable to add in the next two years:

	Now		Within Two Years		
	Yes	No	Yes	Maybe	No
	a) Building wired for T.V. service:				
tot.	116	3	12	17	9
%	73.42	1.90	7.59	10.76	5.70
tot.	127	4	7	15	3
%	80.89	2.55	4.46	9.55	1.91
	b) Building wired for satellite T.V. service:				
tot.	21	19	22	59	34
%	13.29	12.03	13.92	37.34	21.52
tot.	22	22	15	56	38
%	14.01	14.01	9.55	35.67	24.20
	c) Telephone line (phone number) available for computer linkage:				
tot.	73	4	22	38	18
%	46.20	2.53	13.92	24.05	11.39
tot.	68	10	21	37	17
%	43.31	6.37	13.38	23.57	10.83
	d) Computer with modem for telephone linkage:				
tot.	43	11	33	45	23
%	27.22	6.96	20.89	28.48	14.56
tot.	43	11	28	52	20
%	27.39	7.01	17.83	33.12	12.74

	e) Classroom(s) available for student instruction via communication:				
tot.	116	8	33	39	16
%	46.20	5.06	12.66	24.68	10.13
tot.	127	9	28	35	25
%	45.86	5.73	7.64	22.29	15.92
	f) Room(s) available for staff development via communications technology:				
tot.	80	7	23	31	13
%	50.63	4.43	14.56	19.62	8.23
tot.	88	7	15	25	18
%	56.05	4.46	9.55	15.92	11.46
	g) Electronically stored reference materials such as CDROM (laser disc):				
tot.	9	34	17	63	34
%	5.70	21.52	10.76	39.87	21.52
tot.	9	25	14	64	40
%	5.73	15.92	8.92	40.76	25.48
	h) Interactive video disc technology:				
tot.	6	34	18	64	34
%	3.80	21.52	11.39	40.51	21.52
tot.	5	31	12	64	39
%	3.18	19.75	7.64	40.76	24.84